Exam. Code : 107404
Subject Code : 1771

B.Sc. (Bio-Technology) 4th Semester

BT-6 : MOLECULAR BIOLOGY

Time Allowed—2 Hours] [Maximum Marks—40

Note :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. (A) DNA replication is semiconservative—explain with the help of experimental setup.
   (B) Write a note on DNA Polymerases.
2. (A) Discuss Watson and Crick model of DNA structure.
   (B) What are Okazaki fragments?
   (C) Differentiate between Adenine and Adenosine.
3. Discuss in detail the molecular mechanism of DNA recombination.
4. Write a note on insertion sequences and their uses. Why they are called jumping genes?
5. (A) Explain briefly catabolite repression.
   (B) What is attenuation? Discuss Histidine operon.
6. Write a note on prokaryotic translation.
7. (A) Discuss the structure of nucleosome.
   (B) Write a note on post translational regulation of gene expression.

8. Write a note on eukaryotic transcription. Also explain various post transcriptional modifications.